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**A SPACE TELESCOPE FOR MASS DETECTION OF DECAMETER BODIES IN  
THE NEAR SPACE**

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**ABSTRACT**

The Chelyabinsk event has revealed new challenges in the NEO Problem. First one is the understanding that meteoroids of decameter sizes are considerably dangerous and they should be included in the coming programs of massive detection of potentially hazardous bodies. The second point is impossibility to detect a good share of the bodies by ground based instruments. To have an efficient system of detection it is strictly required to add space born telescope(s) to the ground based facilities. The requirements for such a space instrument are simple: the telescope must be capable to massively detect bodies larger than 10 m in the near Earth space providing warning time not less that some hours. This time seems to be sufficient at least for the warning. The latter requirement implies the minimal distance of the first detection of about  $10^6$  km.

We proposed the project of space system for exhaustive detection of decameter bodies coming from the Sun direction to the near Earth space (Chelyabinsk type meteoroids). This area is not available for observations with telescopes located on the Earth or in space around the Earth.

The set of medium-size (30-50 cm) wide field space telescopes will be put into vicinity of L1 (Earth-Sun) point. Observation will be performed in barrier mode. We describe major constituents and options of the project. The entire project could be implemented with off-the-shelf components. This makes it to be reasonably cheap.

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